

IN THE CLAIMS:

Please amend the claims as follows.

1. (Currently Amended) A method of controlling the transmission power used in a digital radio link in a system where a base station and a personal station are parties to ~~the~~ a radio connection and during operation between them either party may send a power control command, which will change the transmission power of the other party, the method comprising:

~~when identifying a transmission rate change in data transfer of the first party changes, the first party informs by the second party of the new transmission rate; and~~

~~in response to the new transmission rate change in the data transfer, changing a manner in which the second party, without estimating a power of a signal from the first party, changes the power control command commands are to be sent to the first party by the second party to be in accordance with the changed data transfer new transmission rate, the first party changes the reception of its own power control command to be in accordance with the new transmission rate.~~

2. (Currently Amended) The method as defined in claim 1, ~~wherein when~~ further comprising:

changing the data transfer transmission rate of the second party changes; and
changing the manner in which the first party will change the power control command commands are to be sent to the second party by the first party; and

~~the second party will change the reception of its own power control command.~~

3. (Currently Amended) A method of controlling the transmission power used in a digital radio link in a system where a base station and a personal station are parties to ~~the~~ a radio connection and during operation between them either party may send a power control command, which will change the transmission power of the other party, the method comprising:

identifying when a transmission rate change in data transfer of the first party ~~changes, the first party informs by~~ the second party ~~of the new transmission rate;~~ and

in response to the ~~new transmission rate~~ change in the data transfer, changing a manner in which ~~the second party changes the power control command~~ commands are to be sent to the first party by the second party to be in accordance with the changed data transfer new transmission rate;

~~the first party changes the reception of its own power control command to be in accordance with the new transmission rate,~~ wherein when the changed data transfer relates to a decreased transmission rate of the first party, ~~decreases~~ the second party will decrease a frequency of power control commands to be sent to the first party and, correspondingly, when the changed data transfer relates to an increased transmission rate ~~increases,~~ the second party will increase the frequency of power control commands.

4. (Currently Amended) A method of controlling the transmission power used in a digital radio link in a system where a base station and a personal station are parties to ~~the~~ a radio connection and during operation between them either party may send a power control command, which will change the transmission power of the other party, the method comprising:

~~identifying when a transmission rate~~ change in data transfer of the first party ~~changes, the first party informs by the second party of the new transmission rate;~~ and

in response to the ~~new transmission rate-~~ change in the data transfer, changing a manner in which ~~the second party changes~~ the power control ~~command~~ commands are to be sent to the first party by the second party to be in accordance with the ~~new transmission rate-~~ changed data transfer ;

~~the first party changes the reception of its own power control command to be in accordance with the new transmission rate,~~ wherein the power control command is formed of a plurality of bits and when the changed data transfer relates to a decreased ~~the~~ transmission rate of the first party, ~~is decreased~~, the second party will shorten a length of the power control command and, correspondingly, when the changed data transfer relates to an increased ~~the~~ transmission rate, ~~is increased~~ the second party will extend the length of the power control command.

5. (Currently Amended) The method as defined in claim 1, wherein when the changed data transfer relates to a decreased ~~the~~ transmission rate of the first party is

decreased, the second party will lower an energy of power control commands to be sent to the first party and, correspondingly, when the changed data transfer relates to an increased transmission rate of the first party ~~is increased~~, the second party will increase the energy of power control commands.

6. (Currently Amended) The method as defined in claim 1, wherein the change in ~~transmission rate~~ the data transfer of the first party is declared in a field of a transmission frame reserved for this purpose.

7. (Currently Amended) The method as defined in claim 1, wherein the change in ~~transmission rate~~ the data transfer of the first party is declared by changing a structure of a transmission frame directly to correspond with the changed data transfer ~~new transfer rate~~.

8. (Currently Amended) A method of controlling the transmission power used in a digital radio link in a system where a base station and a personal station are parties to ~~the~~ a radio connection and during operation between them either party may send a power control command, which will change the transmission power of the other party, the method comprising:

identifying when a change in data transfer ~~transmission rate~~ of the first party ~~changes, the first party informs~~ by the second party ~~of the new transmission rate~~; and

in response to the change in the data transfer new transmission rate, changing a manner in which ~~the second party changes~~ the power control ~~command~~ commands are to be sent to the first party by the second party to be in accordance with the changed data transfer new transmission rate,

~~the first party changes the reception of its own power control command to be in accordance with the new transmission rate~~, wherein the power control ~~command~~ transmits commands are transmitted at first and second transfer rates, the second transfer rate being lower than the first transfer rate, of which the second transfer rate is used when the transmission of the first ~~commanded~~ party is in a DTX state.


9. (Cancelled)

10. (Currently Amended) The method as defined in claim 1, wherein when the manner in which the power control ~~command~~ commands are to be sent changes, a size of the transmitter's power control step is also changed.

11. (Currently Amended) A method of controlling the transmission power used in a digital radio link in a system where a base station and a personal station are parties to ~~the~~ a radio connection and during operation between them either party may send a power control command, which will change the transmission power of the other party, the method comprising:

when identifying a change in data transfer transmission rate of the first party ~~changes, the first party informs by~~ the second party ~~of the new transmission rate;~~ and

in response to the change in the data transfer new transmission rate, changing a manner in which ~~the second party changes~~ the power control ~~command~~ commands are to be sent to the first party by the second party to be in accordance with the changed data transfer new transmission rate;

 the first party ~~changes the reception of its own power control command to be in~~ accordance with the ~~new transmission rate,~~ wherein the manner in which the power control ~~command~~ commands are to be sent in one direction is changed in reverse proportion to a load of the opposite transfer direction.

12. (Currently Amended) A base station ~~operating for operation~~ in a digital radio link in a system where a base station and a personal station are parties to ~~the a~~ radio connection and during operation ~~between them~~ the base station is arranged to control the transmission power of the personal station ~~used~~ by sending a power control command, ~~which will change the transmission power of the personal station,~~ wherein the base station is further arranged to:

~~inform the personal station of~~ identify a change in data transfer new transmission rate of the personal station and change, ~~when the transmission rate of the base station changes, the personal station changing~~ in response to the change in the data transfer new transmission rate, ~~without estimating a power of a signal from the base station, the~~

manner in which the power control ~~command~~ commands are to be sent to the ~~base~~ personal station to be in accordance with the changed data transfer new transmission rate; and

~~change the reception of its own power control command to be in accordance with the new transmission rate.~~

13. (Currently Amended) A personal station ~~operating~~ for operation in a digital radio link in a system where a base station and a personal station are parties to ~~the~~ a radio connection and during operation ~~between them~~ the personal station is arranged to control the transmission power of the base station ~~used~~ by sending a power control command, ~~which will change the transmission power of the base station~~, wherein the personal station is further arranged to:

~~inform the base station of~~ identify a change in data transfer new transmission rate ~~when the transmission rate of the personal~~ base station changes, the base station changing and change, in response to the change in the data transfer new transmission rate, ~~without estimating a power of a signal from the personal station~~, the manner in which the power control ~~command~~ commands are to be sent to the ~~personal~~ base station to be in accordance with the changed data transfer new transmission rate; and

~~change the reception of its own power control command to be in accordance with the new transmission rate.~~

14. (New) A method of operating a base station in a digital radio link, said base station having a radio connection with a personal station, comprising:

identifying a change in amount of traffic received from said personal station;

determining a frequency of transmission of a power control command based on said change in the amount of traffic; and

transmitting said power control command to said personal station in accordance with said frequency of transmission.

15. (New) The method of claim 14, wherein said identifying said change in the amount of traffic comprises at least one of

identifying a change to a DTX state,

identifying an information transfer rate change,

identifying an asymmetric data transfer, and

identifying no data transmissions being received.

16. (New) The method of claim 14, wherein said determining said frequency of transmission of said power control command includes negotiating with said personal station to change said frequency of transmission of said power control command.

17. (New) The method of claim 14, wherein said determining said frequency of transmission of said power control command includes determining said frequency of

transmission based on a change in frequency of received power control commands from said personal station.

18. (New) The method of claim 14, wherein said identifying includes receiving a request from said personal station to change transmission between said personal station and a base station.

19. (New) A method of operating a personal station in a digital radio link, said personal station having a radio connection with a base station, comprising:

identifying a change in amount of traffic received from said base station;

determining a frequency of transmission of a power control command based on said change in the amount of traffic; and

transmitting said power control command to said base station in accordance with said frequency of transmission.

20. (New) The method of claim 19, wherein said identifying said change in amount of traffic comprises at least one of

identifying a change to a DTX state,

identifying an information transfer rate change,

identifying an asymmetric data transfer, and

identifying no data transmissions being received.

21. (New) The method of claim 19, wherein said determining said frequency of transmission of said power control command includes negotiating with said base station to change said frequency of transmission of said power control command.

22. (New) The method of claim 19, includes receiving information from said base station for determining said frequency of transmission.

23. (New) The method of claim 19, wherein said identifying includes sending a request to said base station to change transmission between said base station and said personal station.

24. (New) A method of operating a base station to control transmission of power control commands in a digital radio link, said base station having a radio connection with a personal station, comprising:

identifying an absence of data transmissions being received from said personal station;

determining a base station frequency of transmission of a base station power control command and a personal station frequency of transmission of a personal station power control command based on said absence of data transmissions;

negotiating with said personal station to change said personal station frequency of transmission of said personal station power control command; and

transmitting said base station power control command to said personal station in accordance with said base station frequency of transmission.

25. (New) A method of operating a personal station to control transmission of a power control command in a digital radio link, said personal station having a radio connection with a base station, comprising:

identifying an absence of traffic received from said base station;

negotiating with said base station to determine a frequency of transmission of said power control command; and

transmitting said power control command to said base station in accordance with said frequency of transmission.

26. (New) A method of operating a base station to control transmission of power control commands in a digital radio link, said base station having a radio connection with a personal station, comprising:

receiving a request from a personal station to change transmission between said personal station and said base station;

determining a base station frequency of transmission of a base station power control command and a personal station frequency of transmission of a personal station power control command based upon said request;

negotiating with said personal station to change said personal station frequency of transmission of said personal station power control command; and

transmitting said base station power control command to said personal station in accordance with said base station frequency of transmission.

27. (New) A method of operating a personal station to control transmission of a power control command in a digital radio link, said personal station having a radio connection with a base station, comprising:

sending a request to said base station to change transmission between said base station and said personal station;

negotiating with said base station to determine a frequency of transmission of a power control command based upon said request; and

transmitting said power control command to said base station in accordance with said frequency of transmission.

28. (New) A method of operating a base station to control transmission of power control commands in a digital radio link, said base station having a radio connection with a personal station, comprising:

receiving a request from said personal station to change transmission between said personal station and said base station;

determining a base station frequency of transmission of a base station power control command and a personal station frequency of transmission of a personal station power control command in response to said request;

sending said personal station frequency of transmission of said personal station power control command to said personal station; and

transmitting said base station power control command to said personal station in accordance with said base station frequency of transmission.

29. (New) A method of operating a personal station to control transmission of a power control command in a digital radio link, said personal station having a radio connection with a base station, comprising:

sending a request to said base station to change transmission between said base station and said personal station;

receiving from said base station said frequency of transmission of a power control command in response to said request; and

transmitting said power control command to said base station in accordance with said frequency of transmission.

30. (New) A base station for having a radio connection with a personal station in a digital radio link, said base station configured to:

identify a change in amount of traffic received from said personal station;

determine a frequency of transmission of a power control command based on said change in the amount of traffic; and

transmit said power control command to said personal station in accordance with said frequency of transmission.

31. (New) The base station of claim 30, wherein said base station is configured to identify said change in the amount of traffic by identifying at least one of the following:

a change to a DTX state,

an information transfer rate change,

an asymmetric data transfer, and

no data transmissions being received.

32. (New) The base station of claim 30, wherein said base station is configured to determine said frequency of transmission of power control commands by negotiating with said personal station to change said frequency of transmission of said power control command.

33. (New) The base station of claim 30, wherein said base station is configured to determine said frequency of transmission of said power control command by determining said frequency of transmission based on a change in frequency of received power control commands from said personal station.

34. (New) The base station of claim 30, wherein said base station is configured to identify said change by receiving a request from said personal station to change transmission between said personal station and said base station.

35. (New) A personal station for having a radio connection with a base station in a digital radio link, said personal station configured to:

identify a change in amount of traffic received from said base station;

determine a frequency of transmission of a power control command based on said change in the amount of traffic; and

transmit said power control command to said base station in accordance with said frequency of transmission.

36. (New) The personal station of claim 35, wherein said personal station is configured to identify said change in the amount of traffic by identifying at least one of the following:

a change to a DTX state,

an information transfer rate change,
an asymmetric data transfer, and
no data transmissions being received.

37. (New) The personal station of claim 35, wherein said personal station is configured to determine said frequency of transmission of said power control command by negotiating with said base station to change said frequency of transmission of said power control command.

38. (New) The personal station of claim 35, wherein said personal station is configured to determine said frequency of transmission of said power control command by receiving information from said base station for determining said frequency of transmission.

39. (New) The personal station of claim 35, wherein said personal station is configured to identify said change by sending a request to said base station to change transmission between said base station and said personal station.

40. (New) A base station for having a radio connection with a personal station and for controlling transmission of power control commands in a digital radio link, said base station configured to:

identify an absence of data transmissions being received from said personal station;

determine a base station frequency of transmission of a base station power control command and a personal station frequency of transmission of a personal station power control command based on said absence of data transmissions;

negotiate with said personal station to change said personal station frequency of transmission of said personal station power control command; and

transmit said base station power control command to said personal station in accordance with said base station frequency of transmission.

41. (New) A personal station for having a radio connection with a base station and for controlling transmission of a power control command in a digital radio link, said personal station configured to:

identify an absence of traffic received from said base station;

negotiate with said base station to determine a frequency of transmission of said power control command; and

transmit said power control command to said base station in accordance with said frequency of transmission.

42. (New) A base station for having a radio connection with a personal station and for controlling transmission of power control commands in a digital radio link, said base station configured to:

receive a request from said personal station to change transmission between said personal station and said base station;

determine a base station frequency of transmission of a base station power control command and a personal station frequency of transmission of a personal station power control command based upon said request;

negotiate with said personal station to change said personal station frequency of transmission of said personal station power control command; and

transmit said base station power control command to said personal station in accordance with said base station frequency of transmission.

43. (New) A personal station for having a radio connection with a base station and for controlling transmission of a power control command in a digital radio link, said personal station configured to:

send a request to said base station to change transmission between said base station and said personal station;

negotiate with said base station to determine a frequency of transmission of said power control command based upon said request; and

transmit said power control command to said base station in accordance with said frequency of transmission.

44. (New) A base station for having a radio connection with a personal station and for controlling transmission of power control commands in a digital radio link, said base station configured to:

receive a request from said personal station to change transmission between said personal station and said base station;

determine a base station frequency of transmission of a base station power control command and a personal station frequency of transmission of a personal station power control command in response to said request;

send said personal station frequency of transmission of said personal station power control command to said personal station; and

transmit said base station power control command to said personal station in accordance with said base station frequency of transmission.

45. (New) A personal station for having a radio connection with a base station and for controlling transmission of a power control command in a digital radio link, said personal station configured to:

send a request to said base station to change transmission between said base station and said personal station;

receive from said base station a frequency of transmission of a power control command in response to said request; and

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transmit said power control command to said base station in accordance with said frequency of transmission.
